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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/938,751	08/24/2001	Armin Amrhein	A34487 071308.0210	4100

7590

08/25/2004

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EXAMINER

BAHTA, KIDEST

ART UNIT

PAPER NUMBER

2125

DATE MAILED: 08/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/938,751	AMRHEIN ET AL.	
	Examiner	Art Unit	
	Kidest Bahta	2125	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 4-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoenninger et al. (U.S. Patent 6,260,058) in view of Fletcher et al. (U.S. Patent 5,012,409).

Regarding claims 4, 8 and 15 Hoenninger discloses providing the industrial controller (10) with a runtime system (23), said controller having prioritized running levels, wherein a first level having a first priority executes a plurality of tasks in parallel; providing a plurality of first instructions for said tasks being executed by the industrial controller in the first running level (Fig. 6, column 6, lines 11-25; column 9, lines 1-19);

Hoenninger fails to disclose that providing at least a second instruction for said tasks that enables a waiting for condition to be satisfied, wherein said second instruction causes the industrial controller to execute said second instruction and following instruction in a second running level having a second priority being higher than the first priority if the condition is met; providing at least a third instruction for said tasks which causes the industrial controller to execute the following instructions in said first running level; programming a plurality of tasks to be executed in parallel including sequences of said first, second and third instructions; the industrial controller executes a plurality of

background tasks wherein each background task can be assigned to a different prioritized running level.

Fletcher discloses providing at least a second instruction for said tasks that enables a waiting for condition to be satisfied, wherein said second instruction causes the industrial controller to execute said second instruction and following instruction in a second running level having a second priority being higher than the first priority if the condition is met (column 3, lines 1-12; column 4, lines 50-60; Fig. 4); providing at least a third instruction for said tasks which causes the industrial controller to execute the following instructions in said first running level (column 4, lines 3-6); programming a plurality of tasks to be executed in parallel including sequences of said first, second and third instructions (column 3, lines 54-62); the industrial controller executes a plurality of background tasks wherein each background task can be assigned to a different prioritized running level (column 2, lines 17-40).

It would have been obvious to a person of ordinary skill in the art at the time of invention was made to modify the teachings of Hoenninger with the teachings of Fletcher in order to provides a multi-tasking environment with eight level of priority, instant response to time critical events.

Regarding claims 5 and 9, Hoenninger discloses the running levels are created from the group consisting of system levels (priority level), user levels, and system levels and user levels (Fig. 6, element 35-38)

Regarding claims 6 and 10, Hoenninger discloses the running level model is clocked and wherein the basic clock is derived from any of an internal timer, an internal

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clock of a communication medium, an external device or a variable which belongs to the technological process (Fig. 1, element 23).

Regarding claims 7 and 11, Hoenninger discloses the running levels are selected from the group consisting of an assigned system, user program, and an assigned system and user program (column 8, lines 45-48, i.e., program code is entered in ROM...).

Regarding claims 12-14, Hoenninger discloses the condition to be satisfied is the edge change within a signal and determination of a predefined actual value and the actual value is a position or sensor value (Fig. 1, elements 15 and 16).

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
4. Any inquiry concerning communication or earlier communication from the examiner should be directed to Kidest Bahta, whose telephone number is (703) 308-6103. The examiner can normally be reached on M-F from 7:30 a.m. to 5:00 p.m. EST. If attempts to reach the examiner by phone fail, the examiner's supervisor, Leo Picard, can be reached (703) 308-0538. Additionally, the fax phone for Art Unit 2125 is (703) 872-9306. Any inquiry of a general nature or relating to the status of this application should be directed to the group receptionist at (703) 305-9600.

Kidest Bahta

August 21, 2004

